

OPTICAL BRIDGE FOR CHIP-TO-BOARD INTERCONNECTION AND METHODS OF FABRICATION

ABSTRACT OF THE DISCLOSURE

The present invention provides an optical bridge for interconnecting optical networking components and methods of making optical bridges that include a waveguide that are compatible with semiconductor processing steps. The optical bridge of the present invention has less optical losses and is less affected by misalignment than prior art interconnections. The waveguide is formed of a curable optical material that spans optically active areas of two components. In one embodiment of the present invention, one optical component is an optical circuit board and the connected optical component is an electro-optical integrated circuit package containing light emitting or light receiving elements. The method provides a curable optical liquid to the components, bringing the components together to form a continuous optical liquid between the components, and curing the optical liquid.